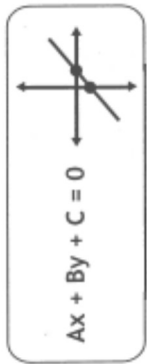


Example 4 Determining an Equation from a graph of generated data (p. 382)

A stack of bills contains only \$5 and \$20 denominations. **The total value is \$140.**

a) Generate some data for this relation (in a table of values). Find the coordinates when the independent value = 0 and when the dependent value = 0 (the x- and y- intercepts), and at least one other point.



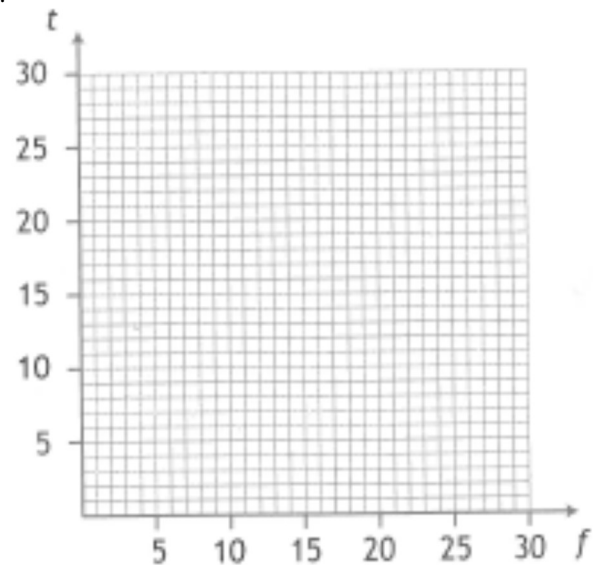
Number of \$5s, $f$	Number of \$20s, $t$



b) Write an equation in general form that relates the variables.

(Use the two intercepts to find the slope. Use the slope-point form using the slope and one of the points. Then convert to general form. Remember  $A$  has to be a whole number.)

c) Graph the relation.



d) Use the graph to find out if the following combinations are possible. Then check your answers by substituting into your equation, to see if  $LS = RS$ .

i) twelve \$5 bills and four \$20?

ii) 18 \$5 and six \$20?